

VISUAL AND FUNCTIONAL SYLLABUS SCHEDULE: An Infographic for Learners

Junghwa K. SUH, DArch
Assistant Professor, Environmental + Interior Design
Chaminade University of Honolulu, HI 96816, USA

Jace HARGIS, PhD
Professor & Associate Provost
Chaminade University of Honolulu
3140 Waialae Avenue, Honolulu, USA

ABSTRACT

The purpose of this paper is to explore graphic ways to visualize a course syllabus and schedule that exceed the needs of communication in a creative format. A syllabus can be a useful learning resource. Effective educators continuously seek new methods to redesign conventional syllabus into an interactive medium for enhanced communication between educators and learners. The course syllabus is a powerful first impression of a course and instructor, which sets the tone, image and instructional philosophy. Visually effective and functional syllabus can act as a motivating factor for learners. It can encourage learners to engage more with syllabus information, helping them to create and connect meaningful conceptual frameworks.

This work focuses on the development of a schedule that provides the overview of one of interior design courses with timeline, lesson topics and learners' tasks in one graphic format. It has explored the transition of how the information can be translated visually for an effective understanding of the information. It presents various possibilities of how dense information of syllabus can be visually designed in an infographic schedule to paint a big picture of the course. It can be developed as an interactive and effective information tool for instructors and learners.

Keywords: Syllabus, Learning Resource, Communication Tool, Interactive, Creative, Engagement.

INTRODUCTION

The first day of the class is always a big day for instructors and learners. Learners are especially nervous and curious to discover more about the course, such as what are the major topics, when the assignments are due and perhaps most importantly will they enjoy the course, or believe they will do well.

Before learners meet instructors in person, they meet the course with multiple papers of syllabus and schedule. Syllabus and schedule become the first impression of the course. The format of syllabus is usually in a standard paper format with required information from Academic Affairs, which includes information about the course, such as:

- Contact information (instructor name, email, phone number, office location and office hours);
- Course information (course name/section number, credit hours, description, learning outcomes aligned to assessments and department/university outcomes);
- Course prerequisites (if any);
- Required and supplemental learning material (hardcopy and/or electronic);
- Assessment, measurement, evaluation and grade scale;
- Course policies, including attendance and academic integrity;
- ADA and Title IX compliance; and
- Calendar with final exam or other culminating learning opportunity date and time.

From an instructor's point of view, the syllabus is similar to a short scholarly article, where the intent is for students to read thoroughly and gain an accurate impression of expectations (Matejke & Kurke, 1994).

Although most agree of the importance of a syllabus, many instructors have noticed that students may not read and fully understand the syllabus. One way to help students attend to a syllabus can be the integration of appropriate, relevant, meaningful technology. As technology has advanced, the ways in which we communicate have also been drastically changed. Many people- instructors and students alike, use media, such as videos, electronic articles, and of course Google to find information, in addition to traditional physical printed paper. Students want to obtain and understand information quickly through effective visual information tools. Considering these rapid electronic changes, which we are experiencing today, this study explores innovative ways to create syllabus schedule for effective communication. The study integrates the concept of "infographics" to visualize academic information that reflect a big picture of the course material and increase learner attention to further engage students in accessing and using the information and schedule.

Perceptions of how a syllabus should be used and what should be contained appear are often discussed across many post-secondary institutions. Although perceptions may be inaccurate, they can become an important factor for student engagement or lack thereof. A comprehensive syllabus sets the tone for the course (Posner & Rudnitsky, 1994).

Harnish, & Bridges (2011) found that a syllabus written in a friendly tone resulted in perceptions of the instructor being more approachable and motivated to teach the course.

Other research has found that the length of a syllabus can give students the perception that the instructor knows more about teaching and students would more readily recommend the course to their colleagues (Saville, Zinn, Brown, & Marchuk, 2010).

Beyond perceptions, there are studies, which have showcased effective practices for syllabus. To create an effective syllabus, Seldin (2009) suggests asking what does the syllabus say about my teaching and learning beliefs; is it a learning-centered syllabus; and what does it say my way of teaching that is specific to me? Gross (1993), indicates that a strong detailed syllabi educate students about course and university resources and reduce anxieties.

A relatively new approach to creating an effective syllabus is through the use of a graphic organizer sequencing the topics and timeline (Nilson, 2010).

LITERATURE REVIEW

What is a Syllabus

The derivative of the word syllabus is from the Latin word "list". In the context of the academe, it is generally thought of as a list or outline of topics, which will be covered during learning experience. The traditional purpose of a syllabus has been generally viewed as a document, created by the instructor and shared with learners to provide information, which they would need to complete a college course (Grunert, 1997). There are many components of a syllabus, which at a minimum include contact information, course description, learning outcomes, learning materials, assessment opportunities, grading, course policies, and a course schedule (Hockensmith, 1988). There are many different interpretations and uses of a standard syllabus. Matejke and Kurke (1994) suggest three ways a syllabus can be used, as a contract, a communication device, and a cognitive map.

Syllabus as a Contract

In a 2009 survey of 27 nursing faculty and 199 students at an undergraduate nursing program, 74% of faculty and 49% of students believed a syllabus was a contract (Davis & Schrader, 2009). The syllabus is NOT a contract (Kauffman, 2014).

Kauffman continues to share that a syllabus does not meet the legal requirements of a contract, in that it lacks consideration, as cited by the court cases of *Di Lella v. University of D.C. David A. Clarke School of Law* (D.D.C 2008) and *S Hoppe v. College of Notre Dame of Maryland* (D.Md. 2011). Furthermore, the following court cases have ruled that a syllabus is NOT a contract:

- *Collins v Grier* (Ohio Ct. App. 1983)
- *Yarcheski v. University of Medicine and Dentistry of New Jersey* (N.J. Super. Ct. 2008)
- *Miller v. MacMurray College* (Ill. App. Ct. 2011)
- *Gabriel v. Albany College of Pharmacy and Health Sciences-Vermont Campus* (D. Vt. 2012)

Syllabus as a Communication Device

The syllabus can act as a primary and on-going method for communicating with students. If the syllabus contains sufficient detail, it can be an accessible reference for students, when they need pertinent information (Hargis, 2014). In the traditional mode, the syllabus can provide a one-way device for communication. During the design of the course, the instructor will clearly state the expectation for the course, which align with suitable timings. Students, who are able to, and/or are directed to the syllabus schedule will find this type of communication can assist in their learning and creating artifacts for assessment. In more innovative cases, the syllabus can act as a quasi-two-way communication device. In this way, the instructor creates the syllabus as before, although now saves and shares the syllabus with students as an electronic file. During the learning experience, the instructor can add to the syllabus, helpful updates, pertinent resources and class activities, which are sent by students. In this way the syllabus acts more like a learning material supplemental resource (Hargis, 2014).

Syllabus as a Cognitive Map

A cognitive map is commonly thought of as globally consistent survey knowledge with a common coordinate system, also known as a global metric embedding (Chrastil & Warren, 2014). In addition Tversky (1992), suggest two other metaphors worth consideration; cognitive collages, which are thematic overlays of multimedia from different points of view; and spatial mental models, or representations that capture categorical spatial relations among elements coherently, allowing perspective-taking, reorientation, and spatial inferences. The alternative models are mentioned to enrich possible visual representations on the complexity of how we process information (Atkinson, & Shiffrin, 1971). Since we are aware that our learners conception of expectations vary widely, then perhaps additional instructional guidelines in a syllabus should be considered. Creating a visual syllabus map allows for more functionality, flexibility and is more accessible to a broad range of learners. A visual cognitive map or spatial collage syllabus can also act as a tool for learner engagement (National Survey of Student Engagement, 2013). Subsequently, increased student engagement has shown to increase intrinsic motivation, retention, collaboration, and critical thinking (Christenson, Reschly, & Wylie, 2012; Yee & Hargis, 2012).

METHODOLOGY

In this study, the syllabus schedule is perceived as an information package that translates a visually clear and interesting cognitive map to stimulate both instructors' and learners' curiosity about a course.

There were several criteria that were identified before the development of the syllabus. The steps are:

- painting a big picture of what the course will cover throughout a semester;
- information + graphic = infographic;

- color coordination of sub-sections; and
- clear distinction and clarification between instructor's and learner's responsible deliverables.

This syllabus schedule has four primary layers, which include the weeks of the semester, sizable shape layer, lesson topic and learner's tasks, and the title of the top and bottom half of the graphic. This particular syllabus was created for one of interior design courses.

Process

First, there has been research about different types of infographics in various disciplines. In architectural and the interior design discipline, visualization of information and design ideas are critical because designers should be capable of communicating their ideas clearly through visual media. The more efficiently that you help the audience understand your idea, the faster your design idea is conveyed in the manner intended. In order for learners to understand the conceptual frameworks of a course, it was necessary to create a map of the relationship between each week's topics and their corresponding assignments, projects, or assessments.

In this way, with a quick glance, learners can understand the major topics of the course and their responsibilities for further work.

Second, the instructor's tasks and the learner's required deliverables were distinguished on the diagram, both graphically and spatially. The top half of the graphic, above the timeline addresses the instructor tasks (Figure 1). Below the timeline is the information, which guide the learners tasks (Figure 2). The middle timeline was created to provide a clear distinction of roles, as well as a tracking mechanism to help stakeholders maintain a similar sense of schedule.

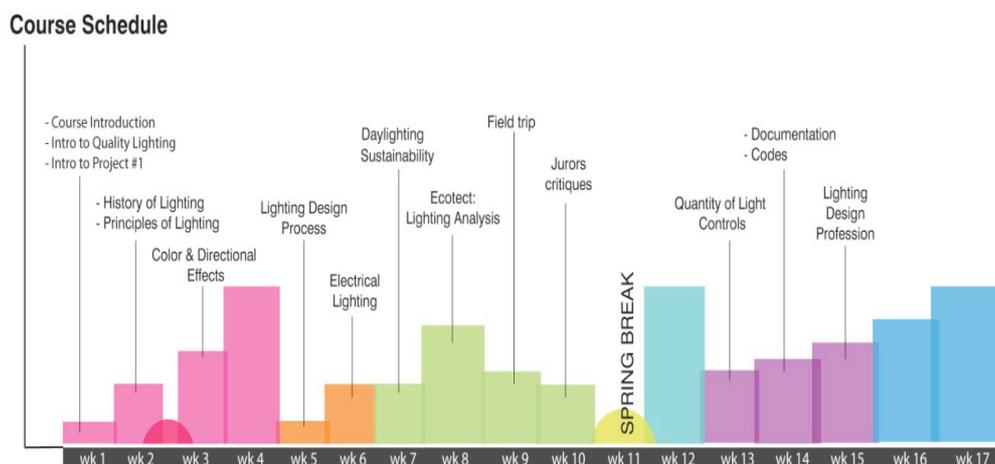


Figure 1.
Instructor timeline

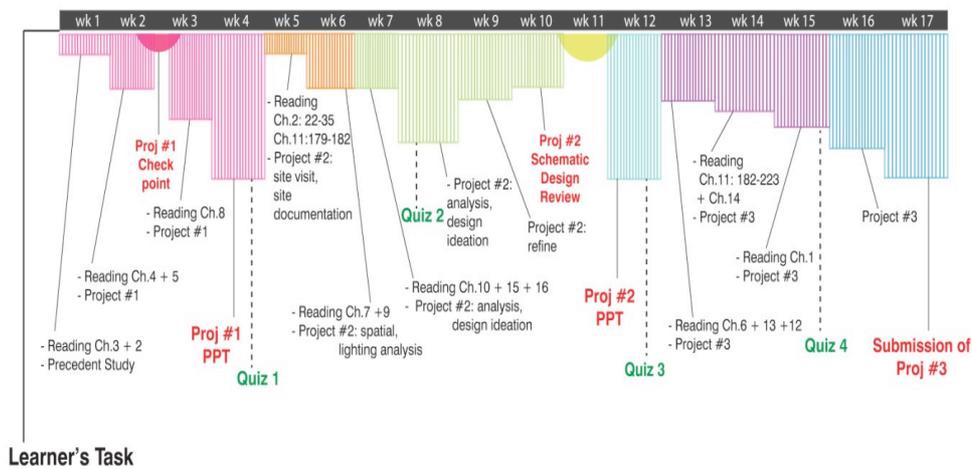


Figure 2.
Learner timeline

Third, various sizes of boxes were created along the timeline. Since this syllabus schedule was for architectural/interior design courses, the graphic shape that defines each week is analogy of buildings in a cityscape. The top half indicates building form and the bottom half represents the reflection of each week's lessons. The different sizes of boxes represent the variations of emphasis on the topics and tasks. If one week has a major project due, the size of the box becomes longer and bigger to help the learner quickly determine the increased value of the assignment.

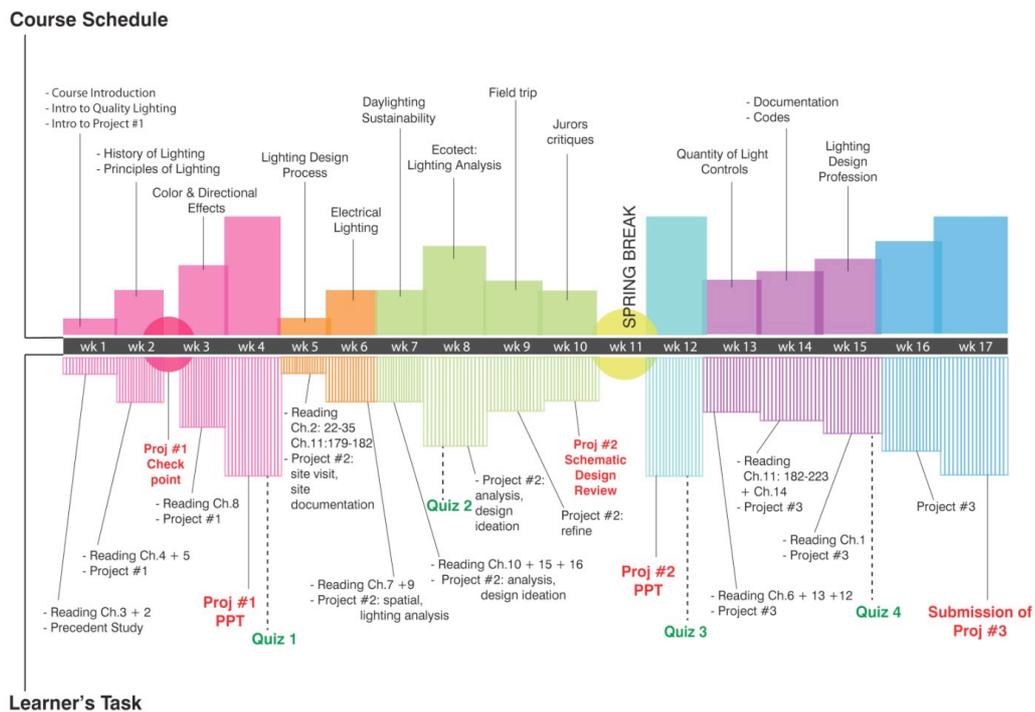
The texture or gradation of the boxes also represents a difference for visually clear distinction between areas of course lessons and learner's tasks. While transparency and the overlap area of solid color boxes indicate how each lesson builds upon each other in the top half, the patterned boxes in the bottom half represent the reflection of knowledge that translates to each subsequent box. Six different colors of boxes indicate sub-sections of each lessons. Circle shapes were used to identify special events or an in-between checkpoint in their learning progress, which may not be part of lessons or tasks.

Fourth, multiple extended lines indicate the descriptive titles of each week's lessons in the top half of the Infograph. From the reflection of the lessons, learner's tasks are extended from each week's boxes in the bottom half. Regular reading assignments are written as black. Major assignments are bolded in red. Quizzes for their learning evaluation are bolded in green. As shown in Figure 1, the lines of lessons are straight which indicate solid establishment of topics. However, the lines of learner's tasks vary in length and directions which represent the creativity of their minds in the course (Figure 2).

Finally, the title of instructor's portion is labeled as "Course Schedule," and the title of learner's portion is labeled as "Learner's Task" to clarify the zones, which are of importance to each stakeholder.

RESULTS

The result of this work is a syllabus schedule that combines the instructor and learner actions, which produces a more holistic picture of course expectations (Figure 3).



Designed & created by Junghwa K. Suh (2015)

Figure 3.
Syllabus schedule for an Interior Design course

This new approach to syllabus schedule design was presented at a weeklong faculty development course redesign workshop in the summer of 2015. The purpose of the course redesign was to provide faculty with the time, resources, information, and collaborative support needed to revise and redesign an existing course in ways that will maximize student engagement and learning. Faculty spent time integrating research-driven teaching and learning strategies into their selected course.

At the conclusion of the studio, each faculty member shared a formal written course plan, redesigned class meetings, and updated, appropriate, relevant and meaningful course assignments with an associated assessment rubric.

Faculty members included a map of the relationship between learning and program outcomes as well as how each will be assessed, course materials, and course activities. Sharing the new schedule generated a lively, positive discussion from the nine faculty attending. Some of the comments included:

- "The visual appeal of the syllabus engages the students, which is the purpose of the schedule. The links are a helpful resource for the students."
- "Visually expressed syllabus schedule like this opens up the possibilities that syllabus can be in a creative and innovative format. It is interesting and thematic for the certain course which can draw students' attention to the course curriculum."
- "It is humble, visually-appealing, informative and progressive. As a student, I would want to 'print and keep' a hardcopy of your graph for constant display/reminder."
- "It showed your students from the first moment in class that the instructor is creative. It is a tool to "set the tone" of the class from the first day."
- "It was a great visual representation of what needs to be done and when throughout the semester."

At the course redesign workshop, we also gathered pre and post assessment faculty perspectives on the concept of syllabus using Poll Everyone.com. A pre-assessment of what word comes to mind when you think of a syllabus (Figure 4) was proceeded. Then this new syllabus schedule for Interior Design (Figure 3) was shared. A post- assessment asking the same question was offered (Figure 5).

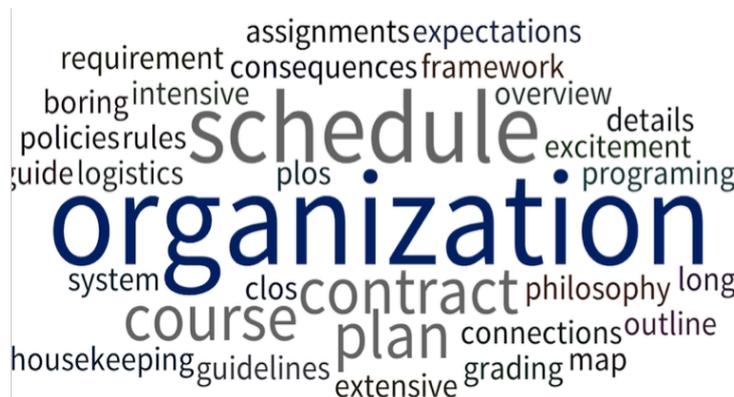


Figure 4.
Pre-Assessment Word Cloud of faculty describing a syllabus.

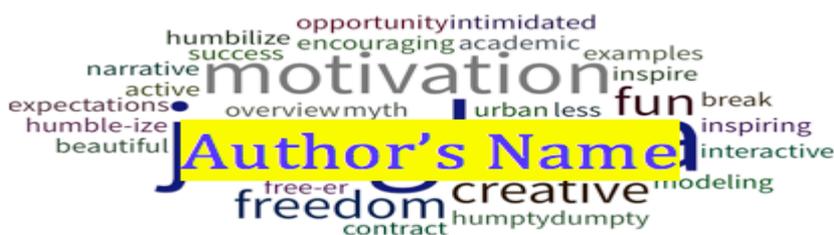


Figure 5.
Post-Assessment Word Cloud of faculty describing a syllabus.

In addition, we have gathered student reactions and behaviors on how they used the schedule, which was observed to be very different than how they used the syllabus in the past. On the first day of the semester, this syllabus schedule quickly captured students' attention. Before an explanation about syllabus was provided, students began to ask relevant questions about the meaning of different colors and organizations of the schedule. Students were encouraged by the instructor to critically think about what each graphic represented and a rich dialogue began between students and the instructor. The first day discussion was therefore more interactive than in the past, students began to view the syllabus in a different way and the instructor and syllabus was perceived as more accessible.

Throughout the semester, the instructor noticed that students would print the syllabus schedule and place predominantly in their notebook binder. Students were keeping track of each week's reading and assignment by marking notes on the schedule. Students were even correcting the instructor if there was a change in lessons per the given schedule. This indicated students were following the readings of the schedule. Some students displayed their schedule in their design work stations, and they even created their own schedule map, connecting the given schedule with other classes' schedule dates.

DISCUSSION

Visually effective syllabus helps students to understand the contents of the course quickly and encourage them to read about the presented information. This type of syllabus schedule is not just pertained in design discipline but its concept also can be utilized in other disciplines. Since information is translated in a graphic format, the visual elements in the schedule should reflect the nature and character of the course. In this way, students can obtain the theme and basic understanding of the course as soon as they encounter the schedule. It encourages students to engage in the course curriculum because the graphic allows them to interact with course lessons. The syllabus is perceived in multi-dimensions instead of information on a two-dimensional paper. Graphic information becomes more real to students, and they start to relate and sustain their attention to learnings. Throughout the semester, learners can build meaningful relationship to the knowledge that is presented in class through the syllabus schedule because it shows how lessons are related to their assignments and projects which understanding of connecting knowledge is clarified visually.

This syllabus schedule has a potential for the improvement and presents possibilities to fitting infographic-driven interactive syllabus in different disciplinary courses. In order to reduce the numbers of information pages in the syllabus, it would be crucial to find ways to embed the entire syllabus in the graphic syllabus schedule.

To make the syllabus truly interactive and increasing students' self-regulated learning, either boxes or timeline of the syllabus schedule itself should be changed in color or shape, corresponding to the course progression throughout the semester.

At the end of the course, this infographic syllabus schedule was kept with creative interactive marks and notes in the front of page of student notebook binders. Although there has been no instruction or requirement saying to keep or being interactive on their schedule, it was evident students were voluntarily utilizing the schedule for brainstorming, planning, tracking and developing their knowledge in the course. This was a great encounter and validation how visually effective syllabus schedule can motivate students about learning and promote interaction with the syllabus that were not common in the past.

BIODATA and CONTACT ADDRESSES of the AUTHORS



Dr. Junghwa SUH is currently an Assistant Professor at Chaminade University of Honolulu. Her research and projects focus on the interdisciplinary, cross-cultural and environmentally-conscious design practice and teaching methodology. She has earned a B.S. in Mathematics from the Gonzaga University; an M.A. in Interior Design from the Washington State University; a Doctor of Architecture (DArch) from the University of Hawai'i. She also obtained Green Associate certificate of Leadership in Energy and Environmental Design (LEED GA).

Junghwa K. Suh, DArch
Assistant Professor, Environmental + Interior Design
Chaminade University of Honolulu
3140 Waiialae Avenue, Honolulu, HI 96816, USA
Phone: 1.808.739.8590
Email: jsuh2323@gmail.com



Jace HARGIS is currently the Associate Provost of Faculty Development, Assessment and Research and Professor at Chaminade University of Honolulu. Previously, he was a College Director in the UAE; an Assistant Provost and Associate Professor at the University of the Pacific; and a Director of Faculty Development and Assistant Professor at the University of North Florida. He has authored a textbook, an anthology and published over 100 academic articles as well as offered hundreds of academic presentations. He has earned a B.S. in Oceanography from Florida Institute of Technology; an M.S. in Environmental Engineering Sciences and a Ph.D. in Science Education from the University of Florida. Dr. Hargis' research agenda focuses on how people learn with the use of emerging instructional technologies.

Jace HARGIS, PhD
Professor & Associate Provost
Chaminade University of Honolulu
3140 Waiialae Avenue, Honolulu, HI 96816, USA
Phone: 1.808.739.7469
Email: jace.hargis@gmail.com

REFERENCES

- Atkinson, R. C., & Shiffrin, R. M. (1971). The control of short-term memory. *Scientific American*, 225, 82-90.
- Chrastil, E. R., & Warren, W. H. (2014) From cognitive maps to cognitive graphs. *PLoS ONE* 9(11): e112544. doi:10.1371/journal.pone.0112544.
- Christenson, S., Reschly, A., & Wylie, C. (2012). *Handbook of Research on Student Engagement*. Springer-Verlag New York.
- Davis, S., & Schrader, V. (2009). Comparison of syllabi expectations between faculty and students in a Baccalaureate nursing program. *Journal of Nursing Education*, 48(3), 125-131.
- Gross, B. D. (1993). *Tools for teaching*. San Francisco: Jossey-Bass.
- Grunert, J. (1997). *The course syllabus: A learning-centered approach*. Bolton, MA: Anker Publishing.
- Harnish, R., & Bridges, J. R. (2011). Effect of syllabus tone: Students' perceptions of instructor and course. *Social Psychology of Education: An International Journal*, 14 (3) 319-330.
- Hargis, J. (2014). A ten year study of faculty classroom observations. *Transformative Dialogues: Teaching and Learning Journal*, 7(2).
- Hargis, J. (2014). Eager adopters: Strategic plan ideas for integrating instructional technology. *Turkish Journal of Distance Education*, 15(4).
- Hockensmith, S. F. (1988). The syllabus as a teaching tool. *The Educational Forum* 52, 339-351.
- Kauffman, K. D. (2014). Is your syllabus a contract? A comparison of the SoTL literature and "The Law". SoTL Commons Conference. Paper 89. Retrieved from <http://digitalcommons.georgiasouthern.edu/sotlcommons/SoTL/2014/89>.
- Matejka, K., & Lance B. K. (1994). Designing a great syllabus. *College Teaching* 42,115-117.
- National Survey of Student Engagement. (2013). *A Fresh Look at Student Engagement - Annual Results 2013*. Bloomington, IN: Indiana University Center for Postsecondary Research.
- Nilson, L. B. (2010). *Teaching at its best: A research-based resource for college instructors (3rd. ed.)*. San Francisco, CA: Jossey-Bass.
- Posner, G. J. & Rudnitsky, A.N. (1994). *Course design: A guide to curriculum development for teachers, 3rd Edition*. Longman, London.

Saville, B., Zinn, T., Brown, A., & Marchuk, K. (2010). Syllabus detail and students' perceptions of teacher effectiveness. *Teaching of Psychology, 37*, 186-189.

Seldin, P. & Miller, E. (2009). *In the academic portfolio: A practical guide to documenting teaching, research and service*. San Francisco: Jossey-Bass.

Tversky, B. (1992). Distortions in cognitive maps. *Geoforum, 23*, 131-138.

Yee, K., & Hargis, J. (2012). Indirect faculty development and the role of sociability. *Journal of Center*